

What is claimed is:

1. An image forming process comprising the steps of:
forming a toner image on an electrophotographic
image-receiving sheet having a support and at least one toner
image-receiving layer on the support; and

fixing and smoothing the toner image on the
electrophotographic image-receiving sheet using a belt fixing
device to thereby produce an electrophotographic print
image,

the fixing and smoothing step further comprising:
rotatably supporting a fixing belt of the belt
fixing device by plural supporting members including a
heating member;

pressing a pressure rotator to the heating member
with the interposition of the fixing belt to form a nip;

allowing the electrophotographic
image-receiving sheet bearing the toner image to pass
through the nip to fix and cool the toner image on the
electrophotographic image-receiving sheet; and

releasing the electrophotographic
image-receiving sheet from the fixing belt,

wherein a specular glossiness $G_sP(45^\circ)$ and a reflected
light scattering index $G_sP(*45\pm3^\circ)$ of a black print image on
the toner image-bearing surface of the electrophotographic

print satisfy the following conditions (I), (II) and (III):

$$(I): 30 \leq GsP(45^\circ)$$

$$(II): 0 \leq GsP (*45 \pm 3^\circ) \leq 15$$

$$(III): [GsP(45^\circ) / GsP (*45 \pm 3^\circ)] \geq 6$$

wherein $GsP(45^\circ)$ is a specular glossiness at an incident angle of 45° and an acceptance angle of 45° ; and $GsP(*45 \pm 3^\circ)$ is the average of $GsP(*42^\circ)$ and $GsP(*48^\circ)$, wherein $GsP(*42^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 42° ; and $GsP(*48^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 48° .

2. An image forming process according to Claim 1, wherein the specular glossiness $GsP(45^\circ)$ and the reflected light scattering index $GsP (*45 \pm 3^\circ)$ satisfy the following conditions (I'), (II') and (III'):

$$(I'): 60 \leq GsP(45^\circ)$$

$$(II'): 0 \leq GsP (*45 \pm 3^\circ) \leq 10$$

$$(III'): [GsP(45^\circ) / GsP (*45 \pm 3^\circ)] \geq 8.$$

3. An image forming process according to Claim 1, wherein the support comprises a base and a thermoplastic resin layer arranged on at least one side of the base.

4. An image forming process according to Claim 3, wherein a thermoplastic resin in the thermoplastic resin layer is a polyolefin resin.

5. An image forming process according to Claim 1, wherein the toner image-receiving layer has a thickness of from 5 μm to 20 μm .

6. An image forming process according to Claim 1, wherein the fixing belt comprises a heat-resistant support film and a releasing layer arranged on the support film.

7. An image forming process according to Claim 6, wherein the releasing layer comprises at least one selected from a silicone rubber, a fluorocarbon rubber, a fluorocarbonsiloxane rubber, a silicone resin, and a fluorocarbon resin.

8. An image forming process according to Claim 7, wherein the releasing layer comprises at least a fluorocarbonsiloxane rubber having at least one of perfluoroalkyl ether groups and perfluoroalkyl groups in its principal chain.

9. An image forming process according to Claim 6,

wherein the releasing layer has a thickness of from 1 μm to 200 μm .

10. An image forming process according to Claim 1, wherein the fixing belt has a surface roughness R_{max} of 3 μm or less.

11. An image forming process according to Claim 1, wherein a surface of the toner image-receiving layer of the electrophotographic image-receiving sheet before printing has a specular glossiness $G_{\text{SP}}(45^\circ)$ and a reflected light scattering index $G_{\text{SP}}(*45\pm3^\circ)$ satisfying at least one of the following conditions (IV), (V) and (VI):

(IV): $G_{\text{SP}}(45^\circ) < 30$

(V): $G_{\text{SP}}(*45\pm3^\circ) > 15$

(VI): $1 \leq [G_{\text{SP}}(45^\circ) / G_{\text{SP}}(*45\pm3^\circ)] < 6$

wherein $G_{\text{SP}}(45^\circ)$ and $G_{\text{SP}}(*45\pm3^\circ)$ have the same meanings as defined above.

12. An image forming apparatus comprising:
a toner image forming unit for forming a toner image on an electrophotographic image-receiving sheet having a support and at least one toner image-receiving layer arranged on the support; and

a toner image-fixing and smoothing unit comprising:

a heating and pressuring member;
a fixing belt;
a cooling device; and
a cooling-releasing section,

wherein the image forming apparatus is so configured as to produce an electrophotographic print, wherein a specular glossiness $GsP(45^\circ)$ and a reflected light scattering index $GsP(*45\pm3^\circ)$ of a black print image on a toner image-bearing surface of the electrophotographic print satisfy the following conditions (I), (II) and (III):

$$(I): 30 \leq GsP(45^\circ)$$

$$(II): 0 \leq GsP(*45\pm3^\circ) \leq 15$$

$$(III): [GsP(45^\circ)/GsP(*45\pm3^\circ)] \geq 6$$

wherein $GsP(45^\circ)$ is a specular glossiness at an incident angle of 45° and an acceptance angle of 45° ; and $GsP(*45\pm3^\circ)$ is the average of $GsP(*42^\circ)$ and $GsP(*48^\circ)$, wherein $GsP(*42^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 42° ; and $GsP(*48^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 48° .

13. An image forming apparatus according to Claim 12, wherein the specular glossiness $GsP(45^\circ)$ and the reflected light scattering index $GsP(*45\pm3^\circ)$ satisfy the following

conditions (I'), (II') and (III'):

$$(I'): 60 \leq \text{GsP}(45^\circ)$$

$$(II'): 0 \leq \text{GsP}(*45 \pm 3^\circ) \leq 10$$

$$(III'): [\text{GsP}(45^\circ) / \text{GsP}(*45 \pm 3^\circ)] \geq 8.$$

14. An image forming apparatus according to Claim 12, wherein the fixing belt comprises a heat-resistant support film and a releasing layer arranged on the support film.

15. An image forming apparatus according to Claim 14, wherein the releasing layer comprises at least one selected from a silicone rubber, a fluorocarbon rubber, a fluorocarbonsiloxane rubber, a silicone resin, and a fluorocarbon resin.

16. An image forming apparatus according to Claim 15, wherein the releasing layer comprises at least a fluorocarbonsiloxane rubber having at least one of perfluoroalkyl ether groups and perfluoroalkyl groups in its principal chain.

17. An image forming apparatus according to Claim 14, wherein the releasing layer has a thickness of from 1 μm to 200 μm .

18. An image forming apparatus according to Claim 12, wherein the fixing belt has a surface roughness R_{\max} of 3 μm or less.

19. An electrophotographic image-receiving sheet comprising:

a support, and

at least one toner image-receiving layer on the support, wherein a toner image-forming surface of the electrophotographic image-receiving sheet before printing has a specular glossiness $G_{\text{SP}}(45^\circ)$ and a reflected light scattering index $G_{\text{SP}}(*45\pm3^\circ)$ satisfying at least one of the following conditions (IV), (V) and (VI):

(IV): $G_{\text{SP}}(45^\circ) < 30$

(V): $G_{\text{SP}}(*45\pm3^\circ) > 15$

(VI): $1 \leq [G_{\text{SP}}(45^\circ) / G_{\text{SP}}(*45\pm3^\circ)] < 6$

wherein $G_{\text{SP}}(45^\circ)$ is a specular glossiness at an incident angle of 45° and an acceptance angle of 45° ; and $G_{\text{SP}}(*45\pm3^\circ)$ is the average of $G_{\text{SP}}(*42^\circ)$ and $G_{\text{SP}}(*48^\circ)$, wherein $G_{\text{SP}}(*42^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 42° ; and $G_{\text{SP}}(*48^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 48° .

20. An electrophotographic image-receiving sheet according to Claim 19, wherein the support comprises a base and a thermoplastic resin layer arranged on at least one side of the base.

21. An electrophotographic image-receiving sheet according to Claim 20, wherein a thermoplastic resin in the thermoplastic resin layer is a polyolefin resin.

22. An electrophotographic image-receiving sheet according to Claim 19, wherein the toner image-receiving layer has a thickness of from 5 μm to 20 μm .

23. An electrophotographic print, wherein a black print image on a toner image-bearing surface of the electrophotographic print has a specular glossiness $\text{GsP}(45^\circ)$ and a reflected light scattering index $\text{GsP}(*45\pm3^\circ)$ satisfying the following conditions (I), (II) and (III):

$$(I): 30 \leq \text{GsP}(45^\circ)$$

$$(II): 0 \leq \text{GsP}(*45\pm3^\circ) \leq 15$$

$$(III): [\text{GsP}(45^\circ) / \text{GsP}(*45\pm3^\circ)] \geq 6$$

wherein $\text{GsP}(45^\circ)$ is a specular glossiness at an incident angle of 45° and an acceptance angle of 45° ; and $\text{GsP}(*45\pm3^\circ)$ is the average of $\text{GsP}(*42^\circ)$ and $\text{GsP}(*48^\circ)$, wherein $\text{GsP}(*42^\circ)$ is a glossiness measured with a specular glossmeter at an

incident angle of 45° and an acceptance angle of 42° ; and $G_sP(*48^\circ)$ is a glossiness measured with a specular glossmeter at an incident angle of 45° and an acceptance angle of 48° .

24. An electrophotographic print according to Claim 23, wherein the specular glossiness $G_sP(45^\circ)$ and the reflected light scattering index $G_sP(*45\pm3^\circ)$ satisfy the following conditions (I'), (II') and (III'):

$$(I'): \quad 60 \leq G_sP(45^\circ)$$

$$(II'): \quad 0 \leq G_sP(*45\pm3^\circ) \leq 10$$

$$(III'): \quad [G_sP(45^\circ)/G_sP(*45\pm3^\circ)] \geq 8.$$